

AUTOMATED MACROMOLECULE SAMPLE PREPARATION SYSTEM

ABSTRACT OF THE DISCLOSURE

5 An apparatus for preparing a macromolecule sample from a complex liquid mixture includes a hydraulic system adapted for control by an automated controller, comprising a pump and one or more valves. The hydraulic system can be controlled by an automated controller to apply the liquid mixture to one or more filters with a pressure differential across each filter. The filters include a rough filter selected to separate, from
10 a macromolecule in a liquid mixture, at least a portion of one or more rough components in the mixture that are larger than the macromolecule. Further included is a fine filter selected to separate from the macromolecule at least a portion of one or more fine components in the mixture that are smaller than the macromolecule. A method for preparing a macromolecule sample includes automatically acquiring a liquid mixture,
15 the mixture including a macromolecule. At least a portion of the other components in the mixture are automatically separated from the macromolecule by applying the mixture to each of one or more filters, with a pressure differential across each filter.